

REMARKS

Claims 1-37 and 39-42 are all the claims pending in the application. Reconsideration and allowance of all the claims are respectfully requested in view of the following remarks.

Specification

The Examiner objected to the specification as including informalities. Specifically, the Examiner asserted that on page 24, line 15, the terms “ ϕ 0.5” and “C0.7” are not clearly understood and as not sufficiently defined by the previous Amendment, stating that “the terms are not dimensionless and require some unit of measure.” Applicants have added the units—mm—to these terms. The specification recites that “when the distribution plate 47 is made of stainless steel to be 1 mm thick, the size of each of the holes 61 is ϕ 0.5, and the size of each of the chamfers 63 is C0.7.” See page 24, lines 13-15. Taking into consideration a relation between the thickness distribution plate 47 and the size of the hole 61, as well as a relation between the thickness of the distribution plate 47 and the size of the chamfers 63 as depicted in Fig. 6, one of ordinary skill in the art would readily recognize that the units of “ ϕ ” and “C” are mm.

In an Advisory Action mailed on November 10, 2003, the Examiner alleged that the above-noted Amendment to the specification was new matter. Applicants respectfully disagree. Instead, the insertion of the units for ϕ and C is simply a correction of an obvious error, and does not constitute new matter. See MPEP § 2163.07 (II). More specifically, one skilled in the art would recognize, as the Examiner has, that ϕ and C are not dimensionless and, therefore, there is an error in the specification. Further, one of ordinary skill in the art would readily recognize the appropriate correction. Specifically, one of ordinary skill in the art would readily recognize the units for ϕ and C to be mm because an example distribution plate 47 was described in that same sentence as being 1 mm thick. And from inspection of Fig. 6b as well as from the relative proportions of the plate 47, hole 61 diameter, and chamfer C, one of ordinary skill would readily recognize that they are all of the same magnitude. Although the drawings are not mentioned as

being to scale, and precise measurements may not be made therefrom¹, the drawings can be relied upon to show relative proportions.²

Claim Rejections under 35 U.S.C. § 102

The Examiner rejected Claims 1, 7, and 39-42 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,494,169, to Tsubouchi et al. (hereafter referenced as '169). The Examiner states that the nozzles of '169 inherently each have a divergent cross section and thereby read on the "avoiding means" or "avoiding portions" of the claimed invention. Applicants respectfully traverse this rejection because the Examiner's interpretation of '169 is mistaken.

Specifically, the Examiner asserts that, by definition, nozzles comprise divergent cross sections at the outlet side thereof. However, according to page 1547 of Webster's Third New International Dictionary (Unabridged), published 1993, a nozzle is defined as: (1) a socket on a candlestick or sconce into which the lower end of a candle fits, (2a) a projecting vent of something : a small spout or other projecting part with an opening, and (2b) a short tube or duct that usually tapers or has a constriction, among other definitions. The tapering or diverging cross sectional aspects of a nozzle, while a possibility, are thus by no means necessary in this commonly-used definition of "nozzle". In addition, the nozzles 41-45 of '169 are only shown in the Figs. as rectangularly-shaped elements, with no specific cross-sectional structure discussed in the specification. Therefore, the Examiner cannot properly characterize the prior art nozzles as "avoiding means"—as he is attempting to do in the present Office Action—without a further showing that a diverging cross section is *necessarily present* in that nozzle. See MPEP 2131.01 (III).

¹ *In re Olson*, 212 F.2d 590, 101 USPQ 401 (CCPA 1954). See also, MPEP §2125.

² *In re Heinle*, 145 USPQ 131 (CCPA 1965).

Further, the nozzles 41-45 of '169 do not perform the function of "preventing the liquid fuel ... from being mixed with each other" as set forth in Applicants' claims. Instead, the nozzles 41-45 appear to do the opposite; they atomize fluid into the chamber 3, wherein the atomized fluid may mix together.

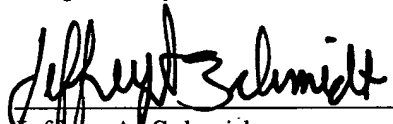
For at least any of the above reasons, Applicants respectfully request withdrawal of the rejection of Claims 1, 7, and 39-42 under 35 U.S.C. § 102(b).

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,


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